Declaration and Power of Attorney for Patent Application English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

paterit is sough	it on the invention entitled.		
PLATING BA	TH AND METHOD FOR DEPOSI	TING A METAL LAYER ON	A SUBSTRATE
the specificatio	n of which		
(check one)		P	
[] [X]	is attached hereto. was filed on October 2, 2001 Application No. 09/970,348 and was amended on (if a	as United States Application pplicable)	n No. or PCT
	hat I have reviewed and understand that I have reviewed and understand that I have reviewed any amendment		d specification,
	the duty to disclose to the United State be material to patentability as defined		
365(b) of any for International ap- and have also	foreign priority benefits under Title 35, preign application(s) for patent or inverpplication which designated at least on identified below, by checking the box, and International application having a filed.	ntor's certificate, or Section 365(e country other than the United any foreign application for paten	a) of any PCT States, listed below t or inventor's
Prior Foreign A	pplication(s)		Priority Not Claimed
(Number)	(Country)	(Day/Month/Year Filed)	. []
(Number)	(Country)	(Day/Month/Year Filed)	. ti
(Number)	(Country)	(Day/Month/Year Filed)	[]

I hereby claim the benefit under 35 U.S. listed below:	C. Section 119(e) of any United	States provisional application(s)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
I hereby claim the benefit under 35 U.S. 365(c) of any PCT International application subject matter of each of the claims of the International application in the manner processed acknowledge the duty to disclose to the to me to be material to patentability as disclose the filing date of the prior application:	ion designating the United State nis application is not disclosed in provided by the first paragraph of United States Patent and Trade defined in Title 37, C.F.C., Sectio	s, listed below and, insofar as the the prior United States or PCT f 35 U.S.C. Section 112, I mark office all information known n 1.56 which became available
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

connected therewith. (/	connected therewith. (list name and registration number)				
David G. Conlin George W. Neuner Linda M. Buckley Peter J. Manus Peter F. Corless Cara Z. Lowen William J. Daley, Jr. Steven M. Jensen John B. Alexander	Reg. No Reg. No Reg. No Reg. No Reg. No Reg. No Reg. No Reg. No Reg. No	 26,96 31,00 26,76 33,86 38,22 35,48 42,69 	4 3 6 0 7 7 3	Christine C. O'Day Robert L. Buchanan David E. Tucker Lisa Swiszcz Hazzard George W. Hartnell Kathleen Carr Stewart L. Gitler Kathryn A. Piffat	Reg. No. 38,256 Reg. No. 40,927 Reg. No. 27,840 Reg. No. 44,368 Reg. No. 42,639 Reg. No. 41,658 Reg. No. 31,256 Reg. No. 34,901
		John J.	hew Cairns Piskorski P. Frickey	Reg. No. 42,378 Reg. No. 35,647 Reg. No. 34,603	
Send Correspondence to: John J. Piskorski c/o EDWARDS & ANGELL, LLP Dike, Bronstein, Roberts & Cushman, IP Group 130 Water Street Boston, Massachusetts 02109 USA				^o Group	
	Direct Telephone Calls to: (name and telephone number) John J. Piskorski Telephone: (508) 229-7662 Facsimile: (508) 229-0254				
Full name of sole or first in	ventor			٠.	
Andrew J. COBLEY Sole or first inventor's signature Date:					
	a.u.o			•	Date.
Residence				,	
7 Henderson Close, Allesley Village, Coventry CV5 9EY, Great Britain Citizenship					
Citizenship					
United Kingdom Post Office Address			 		
Same As Above					
Full name of second inver	ntor				
Mark J. KAPECKAS Second inventor's signature Date: 11-1-01 Residence					
33 Broad Street, Marlborough, Massachusetts 01752, U.S.A. Citizenship					
1					3

U.S.A.

Post Office Address

Same As Above

. .

Full name of third inventor	
Erik REDDINGTON	
Third inventor's signature	Date:
2 Reci-	11/1/0,
Residence	
24 Annetta Road, Ashland, Massachusetts 01721, U.S.A.	
Citizenship	
U.S.A. Post Office Address	
Post Office Address	•
Same As Above	
Full name of sole or fourth inventor	
Wade SONNENBERG	
Fourth inventor's signature	Date:
	11/1/01
Residence	
RR1 472C, Edgartown, Massachusetts 02539, U.S.A.	
Citizenship	
110.4	
U.S.A. Post Office Address	
1 del Office Address	
Same As Above	
Full name of fifth inventor	
Loop B. BARCTAD	
Leon R. BARSTAD Fifth inventor's signature	Date:
	While
h (Clanty	((1101
Residence	
8 Regan Circle, Raynham, Massachusetts 02767, U.S.A.	
Citizenship	
United States of America	
Post Office Address	
Same As Above	

Full name of sixth inventor	
ruii name oi sixtri inventor	
Thomas BUCKLEY	
}	
Sixth inventor's signature	Date:
Docidona	
Residence	
736 Washington Street, Dedham, Massachusetts 02026, U.S.A.	
Citizenship	
Citizenship	
U.S.A.	•
Post Office Address	
7	
Come As Abana	
Same As Above	

Declaration and Power of Attorney for Patent Application English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

PLATING BATH AND METHOD FOR DEPOSITING A METAL LAYER ON A SUBSTRATE

LEMINO	DATH AND METHOD FOR DI	STOSTING A METAL LATER OF	A SUDSTRATE
the specifica	ation of which		
(check one)			
[X]	is attached hereto. was filed on <u>October 2, 20</u> Application No. <u>09/97</u>		n No. or PCT
	and was amended on	(if applicable)	
I hereby sta including the	te that I have reviewed and unders e claims, as amended by any amer	tand the contents of the above identified above identified above.	ed specification,
I acknowled known to me 1.56.	ge the duty to disclose to the Unite to be material to patentability as	d States Patent and Trademark Office defined in Title 37, Code of Federal Re	all information gulations, Section
365(b) of an Internationa and have als	y foreign application(s) for patent on the second of the s	tle 35, United States Code, Section 11: or inventor's certificate, or Section 365(east one country other than the United box, any foreign application for patening a filing date before that of the application	a) of any PCT States, listed below t or inventor's
Prior Foreig	n Application(s)		Priority Not Claimed
(Numbe	r) (Country)	(Day/Month/Year Filed)	. []
(Numbe	r) (Country)	(Day/Month/Year Filed)	. []
(Numbe	r) (Country)	(Day/Month/Year Filed)	. []

I hereby claim the benefit under 35 U.S. listed below:	.C. Section 119(e) of any United	States provisional application(s)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
I hereby claim the benefit under 35 U.S. 365(c) of any PCT International applicate subject matter of each of the claims of the International application in the manner packnowledge the duty to disclose to the to me to be material to patentability as obstween the filing date of the prior appliapplication:	tion designating the United State his application is not disclosed in provided by the first paragraph or United States Patent and Trade defined in Title 37, C.F.C., Section	es, listed below and, insofar as the n the prior United States or PCT of 35 U.S.C. Section 112, I emark office all information known on 1.56 which became available
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

connected therewith. (list name	connected therewith. (list name and registration number)				
George W. Neuner Linda M. Buckley Peter J. Manus Peter F. Corless Cara Z. Lowen William J. Daley, Jr. Steven M. Jensen Reg. N Reg. N Reg. N Reg. N Reg. N	No. 27,026 No. 26,964 No. 31,003 No. 26,766 No. 33,860 No. 38,227 No. 35,487 No. 42,693 No. 48,399	Christine C. O'Day Robert L. Buchanan David E. Tucker Lisa Swiszcz Hazzard George W. Hartnell Kathleen Carr Stewart L. Gitler Kathryn A. Piffat	Reg. No. 38,256 Reg. No. 40,927 Reg. No. 27,840 Reg. No. 44,368 Reg. No. 42,639 Reg. No. 41,658 Reg. No. 31,256 Reg. No. 34,901		
	S. Matthew Cairns John J. Piskorski Darryl P. Frickey	Reg. No. 42,378 Reg. No. 35,647 Reg. No. 34,603			
Send Correspondence to:	Dike, Bronste 130 Water Str	S & ANGELL, LLP in, Roberts & Cushman, II	² Group		
Direct Telephone Calls to:	John J. Pisko	rski			
(name and telephone number)	Telephone: Facsimile:	(508) 229-7662 (508) 229-0254			
Full name of sole or first inventor			•		
Andrew J. COBLEY					
Sole or first inventor's signature			Date:		
Residence					
7 Henderson Close, Allesley Village, Coventry CV5 9EY, Great Britain					
Citizenship					
United Kingdom					
Post Office Address					
Same As Above					
Full name of second inventor					
Mark J. KAPECKAS					
Second inventor's signature			Date:		
Residence					
33 Broad Street, Marlborough, Massachusetts 01752, U.S.A. Citizenship					
U.S.A.					
Post Office Address	Deat Office Address				

Post Office Address

Same As Above

Full name of third inventor	
Erik REDDINGTON	
Third inventor's signature	Date:
Residence	
24 Annetta Road, Ashland, Massachusetts 01721, U.S.A.	
Citizenship	
U.S.A.	
Post Office Address	
Same As Above	
Same As Above	
Full name of sole or fourth inventor	
Wade SONNENBERG Fourth inventor's signature	
Fourth inventor's signature	Date:
Residence	
RR1 472C, Edgartown, Massachusetts 02539, U.S.A.	
Citizenship	
U.S.A.	
Post Office Address	
Same As Above	
Full name of fifth inventor	
Leon R. BARSTAD	
} 	Date:
· · · · · · · · · · · · · · · · · · ·	
Residence	L
9 Bases Cirola Boumbon Massachusette 02767 LLC A	
8 Regan Circle, Raynham, Massachusetts 02767, U.S.A. Citizenship	
·	
United States of America Post Office Address	
Same As Above	

Full name of sixth inventor	
Thomas BUCKLEY	
Sixth inventor's signature	Date:
TIMM	11-3-01
Residence	
736 Washington Street, Dedham, Massachusetts 02026, U.S.	٩.
Citizenship	
U.S.A.	
Post Office Address	
Same As Above	

Declaration and Power of Attorney for Patent Application English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

patent is sough	patent is sought on the invention entitled:				
PLATING BA	TH AND METHOD FOR DEPOSITI	NG A METAL LAYER O	N A SUBSTRATE		
the specification	n of which				
(check one)					
[] [X]	is attached hereto. was filed on October 2, 2001 Application No. 09/970,348 and was amended on (if applie	_ as United States Application	on No. or PCT		
I hereby state the including the cla	nat I have reviewed and understand the caims, as amended by any amendment ref	ontents of the above identifi ferred to above.	ed specification,		
I acknowledge the known to me to 1.56.	he duty to disclose to the United States F be material to patentability as defined in	Patent and Trademark Office Title 37, Code of Federal Re	e all information egulations, Section		
365(b) of any for International ap and have also in	preign priority benefits under Title 35, Universign application(s) for patent or inventor plication which designated at least one condentified below, by checking the box, any International application having a filing ed.	's certificate, or Section 365 ountry other than the United foreign application for pater	(a) of any PCT States, listed below nt or inventor's		
Prior Foreign A	oplication(s)		Priority Not Claimed		
(Number)	(Country)	(Day/Month/Year Filed)	_ []		
(Number)	(Country)	(Day/Month/Year Filed)	_ []		
(Number)	(Country)	(Day/Month/Year Filed)	_ []		

listed below:	C. Section 119(e) of any United	States provisional application(s)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
(Application Serial No.)	(Filing	Date)
I hereby claim the benefit under 35 U.S. 365(c) of any PCT International applicat subject matter of each of the claims of the International application in the manner packnowledge the duty to disclose to the to me to be material to patentability as disclose the filing date of the prior application:	ion designating the United State nis application is not disclosed in provided by the first paragraph of United States Patent and Trade lefined in Title 37, C.F.C., Sectio	s, listed below and, insofar as the the prior United States or PCT 35 U.S.C. Section 112, I mark office all information known n 1.56 which became available
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

connected therewith. (list name and registration number)						
David G. Conlin George W. Neuner Linda M. Buckley Peter J. Manus Peter F. Corless Cara Z. Lowen William J. Daley, Jr. Steven M. Jensen John B. Alexander	George W. Neuner Reg. No. 26,964 Inda M. Buckley Reg. No. 31,003 Peter J. Manus Reg. No. 26,766 Peter F. Corless Reg. No. 33,860 Peter Z. Lowen Reg. No. 38,227 Villiam J. Daley, Jr. Reg. No. 35,487 Reven M. Jensen Reg. No. 42,693			Christine C. O'Day Robert L. Buchanan David E. Tucker Lisa Swiszcz Hazzard George W. Hartnell Kathleen Carr Stewart L. Gitler Kathryn A. Piffat Reg. No. 38,256 Reg. No. 40,927 Reg. No. 27,840 Reg. No. 27,840 Reg. No. 44,368 Reg. No. 42,639 Reg. No. 41,658 Reg. No. 31,256 Reg. No. 34,901		
		John J.	hew Cairns Piskorski P. Frickey	Reg. No. 42,378 Reg. No. 35,647 Reg. No. 34,603		
Send Correspondence to:			John J. Piskorski c/o EDWARDS & ANGELL, LLP Dike, Bronstein, Roberts & Cushman, IP Group 130 Water Street Boston, Massachusetts 02109 USA			
(name and telephone number) Telep			John J. Pisko Telephone: Facsimile:	rski (508) 229-7662 (508) 229-0254		
Full name of sole or first i	nventor	• • • • • • • • • • • • • • • • • • • •				
Residence 7 Henderson Close, All		lage, Co	ventry CV5 9E	Y, Great Britain	Date: 5/11/0/	
United Kingdom						
Post Office Address Same As Above						
Full name of second inve	entor					
Mark J. KAPECKAS Second inventor's signatu	ire				Date:	
Residence					1	
33 Broad Street, Marlb	orough, i	Massach	usetts 01752,	U.S.A.		
					•	

Same As Above

Post Offic Address

U.S.A.

Erik REDDINGTON Third inventor's signature Date: Residence 24 Annetta Road, Ashland, Massachusetts 01721, U.S.A. Citizenship U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address Same As Above
Third inventor's signature Residence 24 Annetta Road, Ashland, Massachusetts 01721, U.S.A. Citizenship U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
24 Annetta Road, Ashland, Massachusetts 01721, U.S.A. Citizenship U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
24 Annetta Road, Ashland, Massachusetts 01721, U.S.A. Citizenship U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
U.S.A. Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Post Office Address Same As Above Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Full name of sole or fourth inventor Wade SONNENBERG Fourth inventor's signature Date: Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Wade SONNENBERG Fourth inventor's signature Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
Residence RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
RR1 472C, Edgartown, Massachusetts 02539, U.S.A. Citizenship U.S.A. Post Office Address
U.S.A. Post Office Address
U.S.A. Post Office Address
Post Office Address
Same As Above
Full name of fifth inventor
Leon R. BARSTAD Fifth inventor's signature Date:
Date.
Residence
8 Regan Circle, Raynham, Massachusetts 02767, U.S.A.
Citizenship
United States of America
Post Office Address .
Same As Above

Full name of sixth inventor	
Thomas BUCKLEY	
Sixth inventor's signature	Date:
Residence	
736 Washington Street, Dedham, Massachusetts 02026, U.S.A.	
Citizenship	
U.S.A.	
Post Office Address	
Same As Above	



ACDE

RECEIVED

Chief Information Officer

APRIL 09, 2002

PTAS

EDWARDS & ANGELL, LLP DIKE, BRONSTEIN, ROBERTS & CUSHMAN, IP GROUP PETER F. CORLESS P.O. BOX 9169 BOSTON, MA 02209 EDWARDS & ANGELL LLP
DIKE BRONSTEIN
ROBERTS CUSHMAN

Chief Information Officer
Washington, DC 20231
www.uspto.gov



1020170018

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/04/2002

REEL/FRAME: 012566/0354

NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

COBLEY, ANDREW J.

DOC DATE: 11/05/2001

ASSIGNOR:

KAPECKAS, MARK J.

DOC DATE: 11/01/2001

ASSIGNOR:

REDDINGTON, ERIK

DOC DATE: 11/01/2001

ASSIGNCR:

SONNENBERG, WADE

DOC DATE: 11/01/2001

ASSIGNOR:

BARSTAD, LEON R.

DOC DATE: 11/01/2001

ASSIGNOR:

BUCKLEY, THOMAS

DOC DATE: 11/03/2001

ASSIGNEE:

SHIPLEY COMPANY, L.L.C. 455 FOREST STREET

MARLBOROUGH, MASSACHUSETTS 01752

012566/0354 PAGE 2

SERIAL NUMBER: 09970348

PATENT NUMBER:

FILING DATE: 10/02/2001

ISSUE DATE:

MARGARET LASALLE, PARALEGAL ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

ocket No.: 51152 02-12-2002 FORM PTO-1595 (Modified) U.S. DEPARTMENT OF COMMERCE (Rev. 03-01) OMB No. 0651-0027 (exp.5/31/2002) FEB 0 4 2002 Patent and Trademark Office P08A/REV03 102017081 Tab settings → → To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Andrew J. COBLEY Thomas BUCKLEY Mark J. KAPECKAS Name: Shipley Company, L.L.C. 2-4-02 Erik REDDINGTON Address: 455 Forest Street Wade SONNENBERG Leon R. BARSTAD ☐ Yes ☒ No Additional names(s) of conveying party(ies) 3. Nature of conveyance: ☐ Merger ☐ Security Agreement ☐ Change of Name City: Marlborough State/Prov.: MA ☐ Other Country: U.S.A. ZIP: 01752 Execution Date: <u>November 5, 2001 (completed)</u> Additional name(s) & address(es) ⊠ No ☐ Yes 4. Application number(s) or patent numbers(s): If this document is being filed together with a new application, the execution date of the application is: Patent Application No. Filing date B. Patent No.(s) 09/970,348 October 2, 2001 ☐ Yes ☒ No Additional numbers 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: concerning document should be mailed: Name: Peter F. Corless 7. Total fee (37 CFR 3.41):....\$ 40.00 Registration No. 33,860 Enclosed - Any excess or insufficiency should be credited or debited to deposit account Address: EDWARDS & ANGELL, LLP Authorized to be charged to deposit account Dike, Bronstein, Roberts & Cushman, IP Group P.O. Box 9169 8. Deposit account number: City: B ston State/Prov.: MA 04-1105 Country: USA ZIP: 02209 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Peter F. Corless January 8, 2002

Total number of pages including cover sheet, attachments, and

Signature

Date

Name of Person Signing

EC:581

ASSIGNMENT

WHEREAS, I, Andrew J. Cobley of West Midlands, England, I, Mark J. Kapeckas of Marlborough, Massachusetts, I, Erik Reddington of Ashland, Massachusetts, I, Wade Sonnenberg of Edgartown, Massachusetts, I, Leon R. Barstad of Raynham, Massachusetts and I, Thomas Buckley of Dedham, Massachusetts, (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "PLATING BATH AND METHOD FOR DEPOSITING A METAL LAYER ON A SUBSTRATE", for which an application for United States Letters Patent with the same title was filed with the U.S. Patent and Trademark Office on October 2, 2001 and assigned U.S. Patent Application Serial No. 09/970,348, and

WHEREAS, Shipley Company, L.L.C., located at 455 Forest Street, Marlborough, Massachusetts 01752, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignors have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, and all applications claiming priority therefrom; and the Assignors hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

The Assignors also hereby grant the law firm of EDWARDS & ANGELL, LLP, Dike, Bronstein, Roberts & Cushman, IP Group, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, the Assignors have caused this Assignment to be executed.

Dated this	_ day of,,	
Dated this	day of NOVENBER, 2001.	Andrew J. COBLEY Mark J. KADOGKAS
Dated this _/_	day of November, 2001.	Mark J KAPECKAS Erik REDDINGTON
Dated this	day of November, zer (.	Wade SONNENBERG
Dated this __	day of November, 2001.	Leon R. BARSTAD
Dated this	_ day of,	Thomas BUCKLEY

ASSIGNMENT

WHEREAS, I, Andrew J. Cobley of West Midlands, England, I, Mark J. Kapeckas of Marlborough, Massachusetts, I, Erik Reddington of Ashland, Massachusetts, I, Wade Sonnenberg of Edgartown, Massachusetts, I, Leon R. Barstad of Raynham, Massachusetts and I, Thomas Buckley of Dedham, Massachusetts, (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "PLATING BATH AND METHOD FOR DEPOSITING A METAL LAYER ON A SUBSTRATE", for which an application for United States Letters Patent with the same title was filed with the U.S. Patent and Trademark Office on October 2, 2001 and assigned U.S. Patent Application Serial No. 09/970,348, and

WHEREAS, Shipley Company, L.L.C., located at 455 Forest Street, Marlborough, Massachusetts 01752, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignors have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, and all applications claiming priority therefrom; and the Assignors hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

The Assignors also hereby grant the law firm of EDWARDS & ANGELL, LLP, Dike, Bronstein, Roberts & Cushman, IP Group, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, the Assignors have caused this Assignment to be executed.

Dated this	day of,	
		Andrew J. COBLEY
Dated this	day of,	
		Mark J. KAPECKAS
Dated this	day of,	
		Erik REDDINGTON
Dated this	day of,	
		Wade SONNENBERG
Dated this	day of,,	
		Leon R. BARSTAD
Dated this 3	day of November, 2001.	The My
		Thomas BUCKLEY

ASSIGNMENT

WHEREAS, I, Andrew J. Cobley of West Midlands, England, I, Mark J. Kapeckas of Marlborough, Massachusetts, I, Erik Reddington of Ashland, Massachusetts, I, Wade Sonnenberg of Edgartown, Massachusetts, I, Leon R. Barstad of Raynham, Massachusetts and I, Thomas Buckley of Dedham, Massachusetts, (hereinafter referred to as "Assignors"), have invented certain new and useful improvements in "PLATING BATH AND METHOD FOR DEPOSITING A METAL LAYER ON A SUBSTRATE", for which an application for United States Letters Patent with the same title was filed with the U.S. Patent and Trademark Office on October 2, 2001 and assigned U.S. Patent Application Serial No. 09/970,348, and

WHEREAS, Shipley Company, L.L.C., located at 455 Forest Street, Marlborough, Massachusetts 01752, (hereinafter referred to as the "Assignee"), is desirous of acquiring the entire right, title and interest in and to the same invention, and in and to the said application, and any Letters Patent that may issue thereon;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for the above consideration, the Assignors have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest for the United States in and to the said invention and in and to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, in whole or in part, re-examinations, and extensions thereof, and all applications claiming priority therefrom; and the Assignors hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as their interest is concerned, to the Assignee; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors also have assigned and transferred, and do hereby assign and transfer to the Assignee, its successors and assigns, their entire right, title and interest in and to the invention disclosed in said application, in all countries of the world foreign to the United States, including the right to file applications and obtain patents for said invention in its own name in said countries and including all rights of priority in said countries under the terms of any applicable international convention; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which any and all of said Letters Patent for said invention may issue, to the same extent as the Assignors would hold and enjoy if this Assignment had not been made.

The Assignors further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

The Assignors also hereby grant the law firm of EDWARDS & ANGELL, LLP, Dike, Bronstein, Roberts & Cushman, IP Group, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, the Assignors have caused this Assignment to be executed.

Dated this _	day of _	Noverly	., <u>200</u> 1.	A Collas
Dated this	day of _		· _••	Andrew J. COBLEY
				Mark J. KAPECKAS
Dated this	day of _		_,	•
				Erik REDDINGTON
Dated this	day of _		_,	
				Wade SONNENBERG
Dated this	day of _		_,	
				Leon R. BARSTAD
Dated this	day of _		_,	
				Thomas BUCKLEY